Missouri Assessment Program
Spring 2005

Mathematics

Released Items Scoring Guides

Grade 4

Session: 1
Item No.: 2
Page No.: 4
Content Standard(s): 2 Geometric/Spatial Sense and Measurement
Process Standard(s): 3.4

Exemplary Response:

Length of Ivy's Jumps

Jump	Length (in feet and inches)	Length (in inches)
1	3 feet	**36 inches**
2	2 feet, 4 inches	**28 inches**
3	3 feet, 10 inches	**46 inches**
4	2 feet, 9 inches	**33 inches**

Score Points:

2 points Exemplary response (four components)

1 point Two or three components

0 points Other

Session: 1
Item No.: 6
Page No.: 7
Content Standard(s): 4 Patterns and Relationships
Process Standard(s): 1.6

Exemplary Response:

. . . , 32, 40, 48

OR

$8 \times 6 = 48$

OR

Continue adding 8 pages every hour for 6 hours.

OR

Other valid process

AND

48 (pages)

Score Points:

2 points Exemplary response

1 point Correct process; error in computation
OR
Correct answer only

0 points Other

Session:	1	
Item No.:	9	
Page No.:	9	
Content Standard(s):	4	Patterns and Relationships
Process Standard(s):	3.1	

Exemplary Response:

$11 + (11 \times 2) =$ ☐

OR

$11 + 22 =$ ☐

OR

Other valid number sentence

AND

33 (rides)

Score Points:

2 points Exemplary response

1 point One component
OR
Correct number sentence with an error in computation

0 points Other

Session: 1
Item No.: 10
Page No.: 10–11
Content Standard(s): 3 Data Analysis, Probability, and Statistics
Process Standard(s): 1.8

Score Points:

4 points — The student's response fully addresses the performance event.

The response:

- demonstrates knowledge of the mathematical concepts and principles needed to complete the event.
- communicates all process components that lead to an appropriate and systematic solution.
- may have only minor flaws with no effect on the reasonableness of the solution.

3 points — The student's response substantially addresses the performance event.

The response:

- demonstrates knowledge of the mathematical concepts and principles needed to complete the event.
- communicates most process components that lead to an appropriate and systematic solution.
- may have only minor flaws with minimal effect on the reasonableness of the solution.

2 points — The student's response partially addresses the performance event.

The response:

- demonstrates a limited knowledge of mathematical concepts and principles needed to complete the event.
- communicates some process components that lead to an appropriate and systematic solution.
- may have flaws or extraneous information that indicates some lack of understanding or confusion.

Session: 1
Item No.: 10
Page No.: 10–11
Content Standard(s): 3 Data Analysis, Probability, and Statistics
Process Standard(s): 1.8

1 point — The student's response minimally addresses the performance event.

The response:

- demonstrates a limited knowledge of the mathematical concepts and principles needed to complete the event.
- communicates few or no process components that lead to an appropriate and systematic solution.
- may have flaws or extraneous information that indicates lack of understanding or confusion.

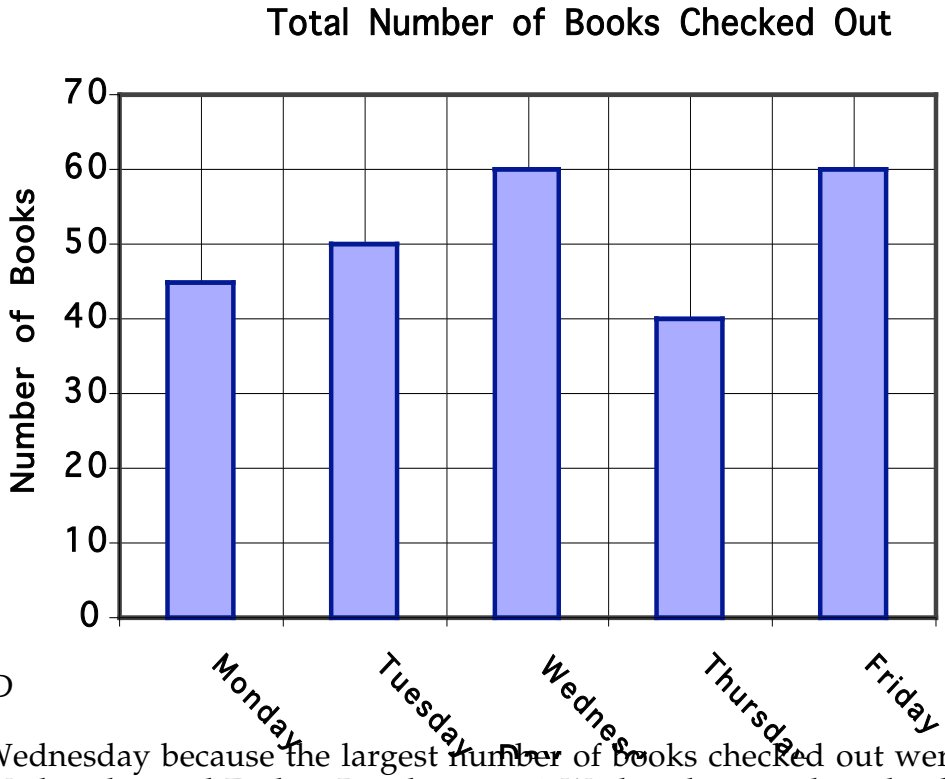
0 points — Other—Responses not addressed by the Condition Codes:

Examples of "0":

Work consists of copying the prompt information only.
Work indicates no mathematical understanding of the task.

Session: 1
Item No.: 10
Page No.: 10–11
Content Standard(s): 3 Data Analysis, Probability, and Statistics
Process Standard(s): 1.8

Exemplary Response:



AND

Wednesday because the largest number of books checked out were on Wednesday and Friday. But there are 3 Wednesdays on the calendar that have a higher number of check-outs than on Friday.

OR

Friday because the largest number of books checked were on Wednesday and Friday. But there is one Friday with a large number of check-outs.

OR

Other valid explanation

Score Points:
Apply the four-point holistic rubric.

Session: 2
Item No.: 1
Page No.: 2–3
Content Standard(s): 1 Number Sense
Process Standard(s): 4.1

Score Points:

4 points — The student's response fully addresses the performance event.

The response:

- demonstrates knowledge of the mathematical concepts and principles needed to complete the event.
- communicates all process components that lead to an appropriate and systematic solution.
- may have only minor flaws with no effect on the reasonableness of the solution.

3 points — The student's response substantially addresses the performance event.

The response:

- demonstrates knowledge of the mathematical concepts and principles needed to complete the event.
- communicates most process components that lead to an appropriate and systematic solution.
- may have only minor flaws with minimal effect on the reasonableness of the solution.

2 points — The student's response partially addresses the performance event.

The response:

- demonstrates a limited knowledge of mathematical concepts and principles needed to complete the event.
- communicates some process components that lead to an appropriate and systematic solution.
- may have flaws or extraneous information that indicates some lack of understanding or confusion.

Session: 2
Item No.: 1
Page No.: 2–3
Content Standard(s): 1 Number Sense
Process Standard(s): 4.1

1 point — The student's response minimally addresses the performance event.

The response:

- demonstrates a limited knowledge of the mathematical concepts and principles needed to complete the event.
- communicates few or no process components that lead to an appropriate and systematic solution.
- may have flaws or extraneous information that indicates lack of understanding or confusion.

0 points — Other—Responses not addressed by the Condition Codes:

Examples of "0":

Work consists of copying the prompt information only.
Work indicates no mathematical understanding of the task.

Session: 2
Item No.: 1
Page No.: 2–3
Content Standard(s): 1 Number Sense
Process Standard(s): 4.1

Exemplary Response:

I divided the number of each type of fruit by 5 to find out how many could go in each basket.
14 oranges ∏ 5 = about 3; 12 bananas ∏ 5 = about 2; 21 apples ∏ 5 = about 4
Then I made sure that each basket totaled under $3.50.

OR

Other valid explanation or diagram of student's planning

Session: 2
Item No.: 1
Page No.: 2–3
Content Standard(s): 1 Number Sense
Process Standard(s): 4.1

AND

Basket 1

4 orange(s)
2 banana(s)
4 apple(s)
Price $ 3.20

Basket 2

1 orange(s)
3 banana(s)
5 apple(s)
Price $ 3.05

Basket 3

3 orange(s)
3 banana(s)
4 apple(s)
Price $ 3.05

Basket 4

3 orange(s)
2 banana(s)
4 apple(s)
Price $ 2.95

Basket 5

3 orange(s)
2 banana(s)
4 apple(s)
Price $ 2.95

OR

Other valid combinations of fruit totaling $3.50 or less

Score Points:

Apply the four-point holistic rubric.

Session: 2
Item No.: 5
Page No.: 6
Content Standard(s): 6 Discrete Mathematics
Process Standard(s): 1.5

Exemplary Response:

(House) B

AND

House B is 4 blocks from school, and Houses A and C are 5 blocks from school, so House B has the shortest route.

OR

Other valid explanation

Note: Student must show a comparison.

Score Points:

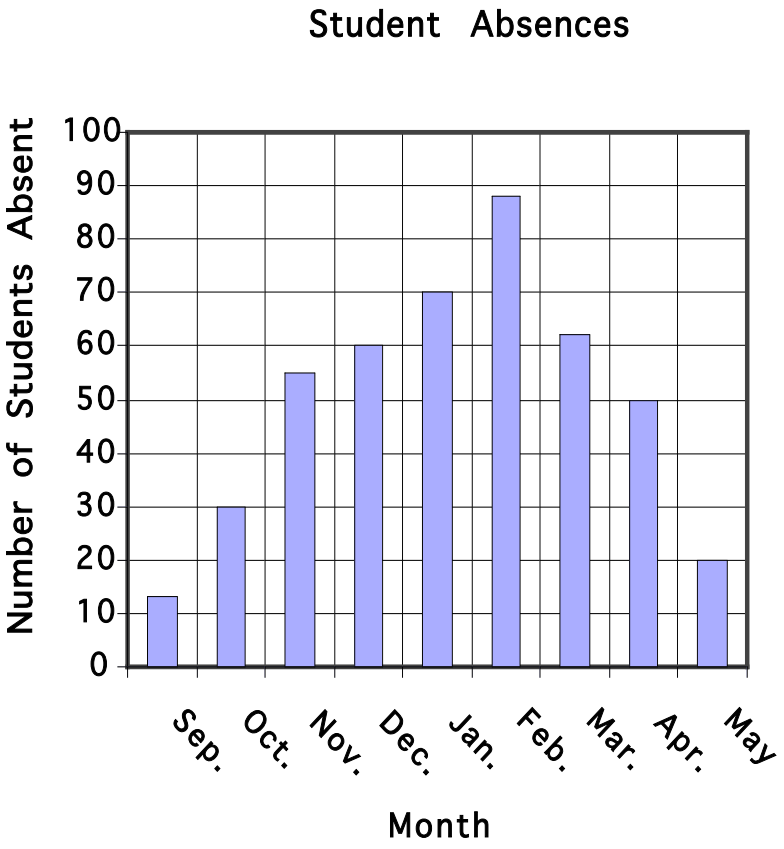
2 points Exemplary response

1 point One component

0 points Other

Session: 2
Item No.: 7
Page No.: 8–9
Content Standard(s): 3 Data Analysis, Probability, and Statistics
Process Standard(s): 1.8

Exemplary Response:



Score Points:

2 points Exemplary response (nine components of correctly drawn bars)

1 point Six to eight components
OR
Other correctly drawn graph

0 points Other